

Final Total Maximum Daily Load Implementation Plan for the Middle Fork Payette River and Addendum to the Sub- basin Assessment and Total Maximum Daily Load for the Middle Fork Payette River

Compiled by the Idaho Department of Environmental Quality with assistance from the U.S. Forest Service, Idaho Soil Conservation Commission, Natural Resources Conservation Service, Idaho Department of Lands, and the Squaw Creek Soil Conservation District

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NRCS Natural Resources
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Executive Summary

The Middle Fork Payette River (HUC 17050121) is a fifth order tributary of the Payette River in the northern part of Boise County, and the southern part of Valley County, Idaho (Figure 1). The Middle Fork Payette River originates approximately 46 miles north-northeast of the town of Crouch, Idaho. The Middle Fork Payette River flows from an elevation of 6,860 to 3,208 feet, at its confluence with the South Fork Payette River downstream of Crouch, Idaho. The river drains a 292 square-mile basin managed predominately by the USDA Boise National Forest. Land uses in the watershed consist of timber management in most of the basin, some grazing and small agriculture operations along the lower reaches, and a small urban area at the town of Crouch.

In 1994, and again in 1996, numerous segments within the Middle Fork Payette River were classified as water quality limited due to sediment under Section 303(d) of the Federal Clean Water Act (CWA). Unlisted segments within the Middle Fork Payette River watershed also contribute sediment to the listed segment. Subsequent to the Section 303(d) requirements a Total Maximum Daily Load (TMDL) management plan was developed and approved by the Environmental Protection Agency (EPA). A copy of the final TMDL (Sub-Basin Assessment and Total Maximum Daily Load for the Middle Fork Payette River, DEQ – 1998) can be obtained from the Idaho Department of Environmental Quality's (DEQ) Boise Regional Office.

Idaho Code §39-3615 states that “The director, ... may name watershed advisory groups which generally advise the department on the development and implementation of TMDLs and ... including those specific actions needed to control point and nonpoint sources of pollution ...” In January 2001 and again in June 2001, the DEQ attempted to carry out this mission by holding a series of public information meetings in an effort to develop a Middle Fork Payette River Watershed Advisory Group. While the DEQ received positive response from all the designated land management agencies to this call, DEQ was unable to bolster support from area landowners and interested parties within the Middle Fork Payette River watershed to assist in the development of this plan. As such, in an effort to complete the implementation plan within the 18-month time frame following the approval of the TMDL, the DEQ began communications with each of the designated agencies in an effort to develop an implementation plan for the Middle Fork Payette River watershed. Remedial actions will be necessary throughout the listed and unlisted waterbodies to address the water quality limitations in the §303(d) listed segment. This document represents the cumulative technical efforts of the U.S. Forest Service, Idaho Department of Lands, Soil Conservation Commission, Natural Resources Conservation Service, Squaw Creek Soil and Water Conservation District, and the DEQ to develop an implementation plan, which when funded and implemented may lead to the full restoration of designated beneficial uses in the watershed.

The Middle Fork Payette River TMDL implementation plan is based on the following premises:

- Natural background levels of sedimentation are assumed to be fully supportive of the beneficial uses;
- The river system has some finite yet un-quantified ability to process (attenuate through export and/or deposition) a sedimentation rate greater than background rates; and
- Beneficial uses are not likely to be met without addressing the hydrologic modification of the

system associated with loss of sinuosity, entrenchment of the channel, and loss of flood plain connectivity.

In order to achieve the goals of the TMDL, best management practices (BMPs) will need to be implemented within the Middle Fork Payette watershed to reduce the Load Allocations from nonpoint source pollution. Full implementation of this plan should lead to the reduction of excessive sediment loads from land management activities, riparian vegetation losses, and bank destabilization. An increase to the 2-meter pool frequency within these lower reaches has been identified as the primary interim target that will be used to support the identified beneficial uses. Additionally, work completed by Borden, 2001 indicates that sediment within the Middle Fork of the Payette River will need to be reduced by 76% in order for beneficial uses to be obtained. A 76 percent reduction in anthropogenic loads was subsequently chosen as the numeric target for the implementation plan.

The DEQ has developed a TMDL implementation tracking database for use in the Middle Fork Payette River based on work completed for Cascade Reservoir TMDL Implementation Plan. Hydrologic conditions are similar to work completed within the Cascade area. As such, BMP effectiveness from projects implemented within the Cascade watershed will be applied to the Middle Fork Payette watershed.

This document represents the implementation plan and specifies the controls necessary to improve the Middle Fork Payette River water quality to meet the 76% reduction as outlined in “A Comparison of Sediment Monitoring to Sediment Facies Mapping in the Middle Fork Payette River, Central Idaho” (Borden 2001) and the interim targets of the TMDL.